

# Building Hawaii's Capacity for Healthy Lifestyles

---

A Workshop to Design Hawaii's  
Statewide Plan for Physical Activity  
and Nutrition

October 17, 2005

# Presentation Objectives

---

- Brief presentation of data that inform us about:
  - The extent of the problem of overweight in children and adults in Hawaii
  - Geographic and ethnic differences in proportion of individuals' overweight
  - On nutritional and physical activity habits

# Childhood & Youth Overweight and 'At-risk' for Overweight

---

Definitions of overweight used for children:

Overweight is defined as BMI  $\geq$  95<sup>th</sup> percentile.

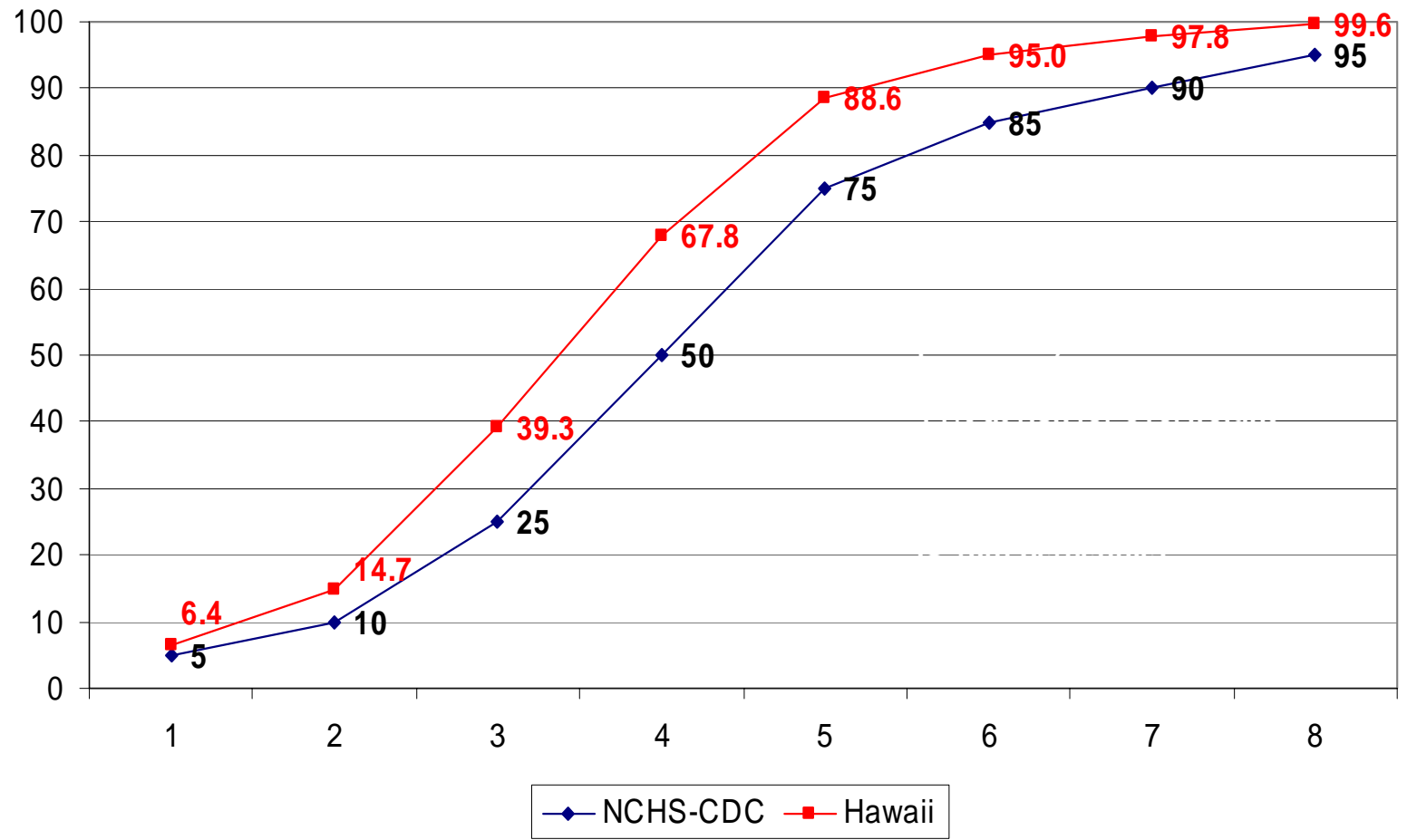
'At-risk' for overweight is defined as being between  $\geq$  85<sup>th</sup> and  $<$  95<sup>th</sup> percentiles.

## DOE 2002-2003 Kindergarten Data

Analysis of data taken from Form 14 show that approximately 10,000 four and five year olds enter Hawaii's public schools with weight problems:

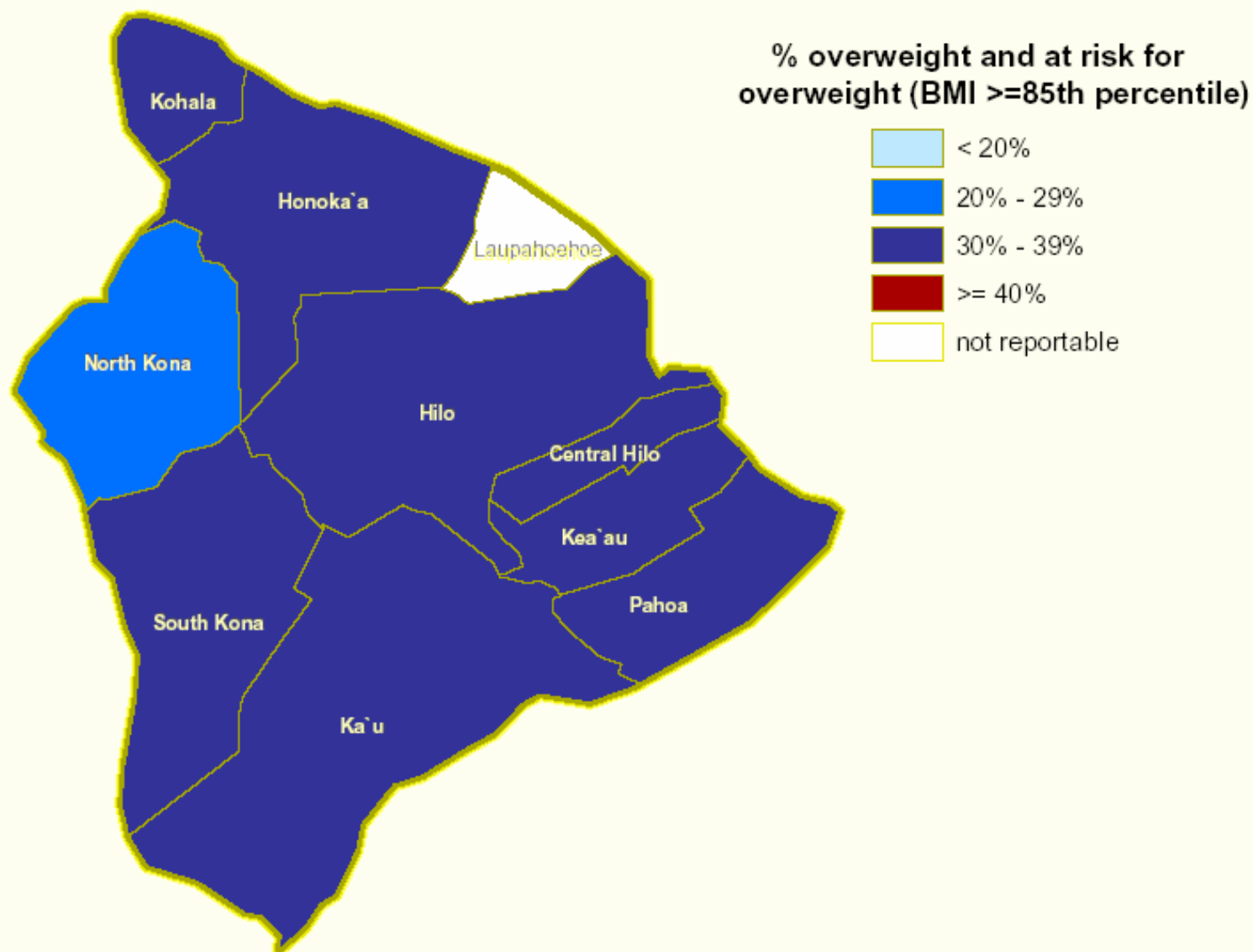
- 14 % Overweight
- 15% 'At-risk' for overweight
- 29% Combined 'at-risk' and overweight
- *There are marked differences between school complexes*

**BMI Percentiles for 4&5 year olds entering public schools  
in 2002-2003, Hawaii Total (N=9,804)**

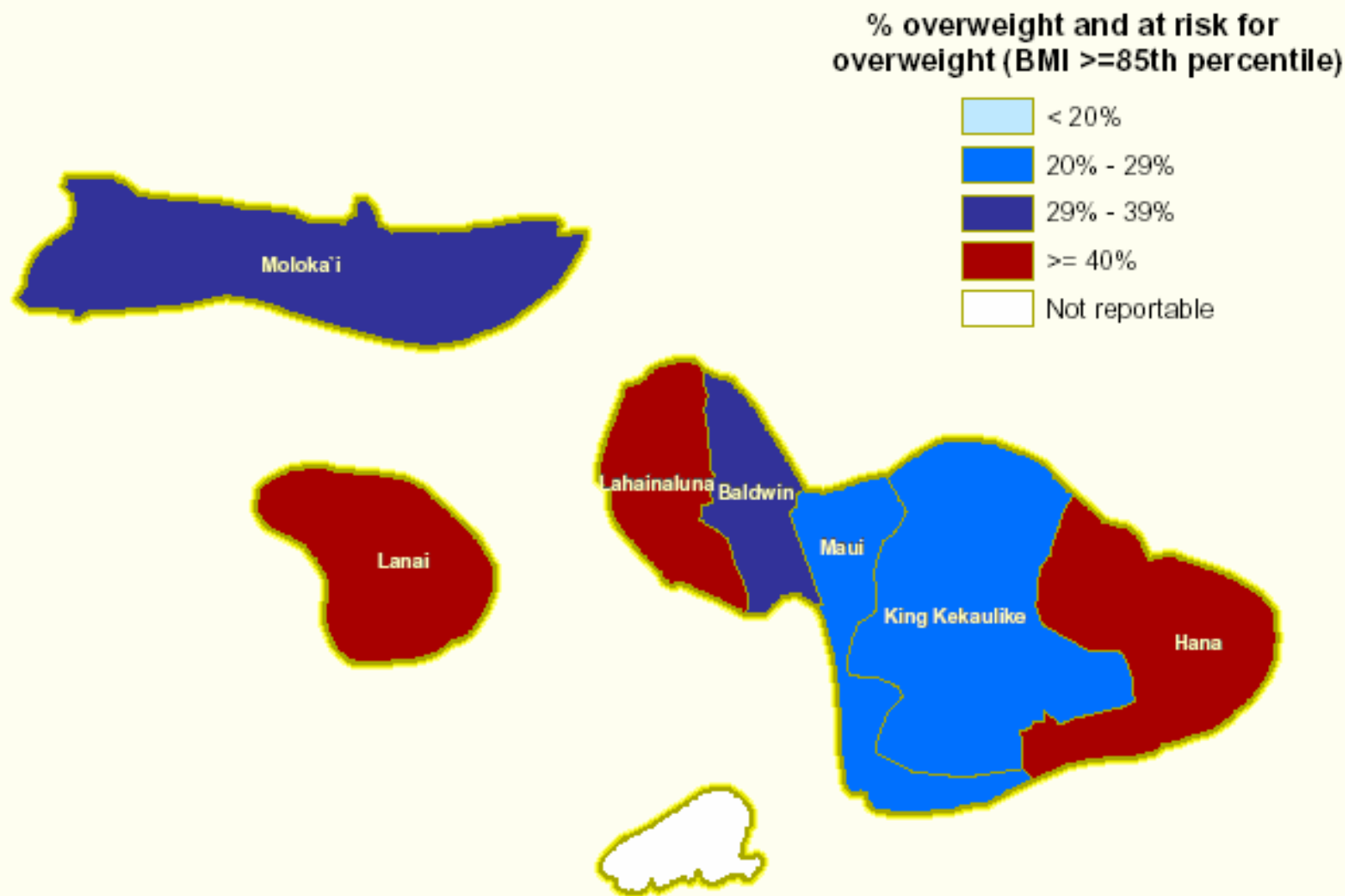




# Percent Overweight And At Risk for Overweight, Public School Students Entering Kindergarten By School Complex, Hawai`i County, 2002 - 2003

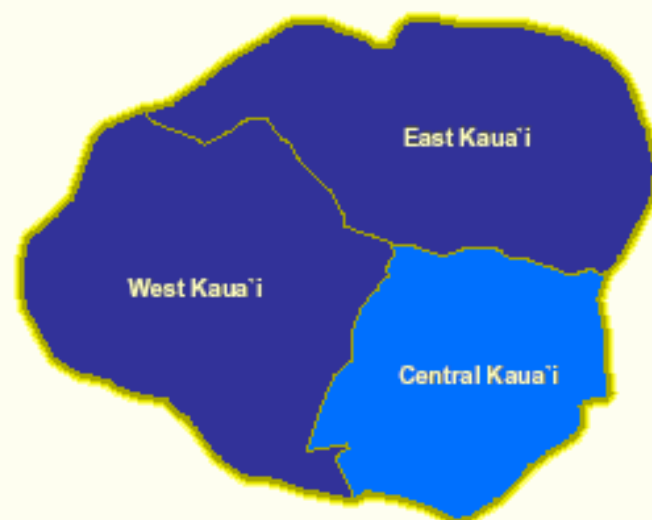
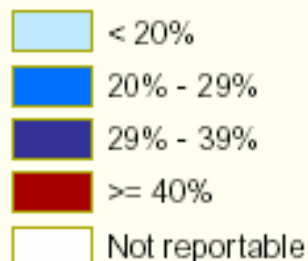


# Percent Overweight And At Risk for Overweight, Public School Students Entering Kindergarten By School Complex, County of Maui, 2002 - 2003



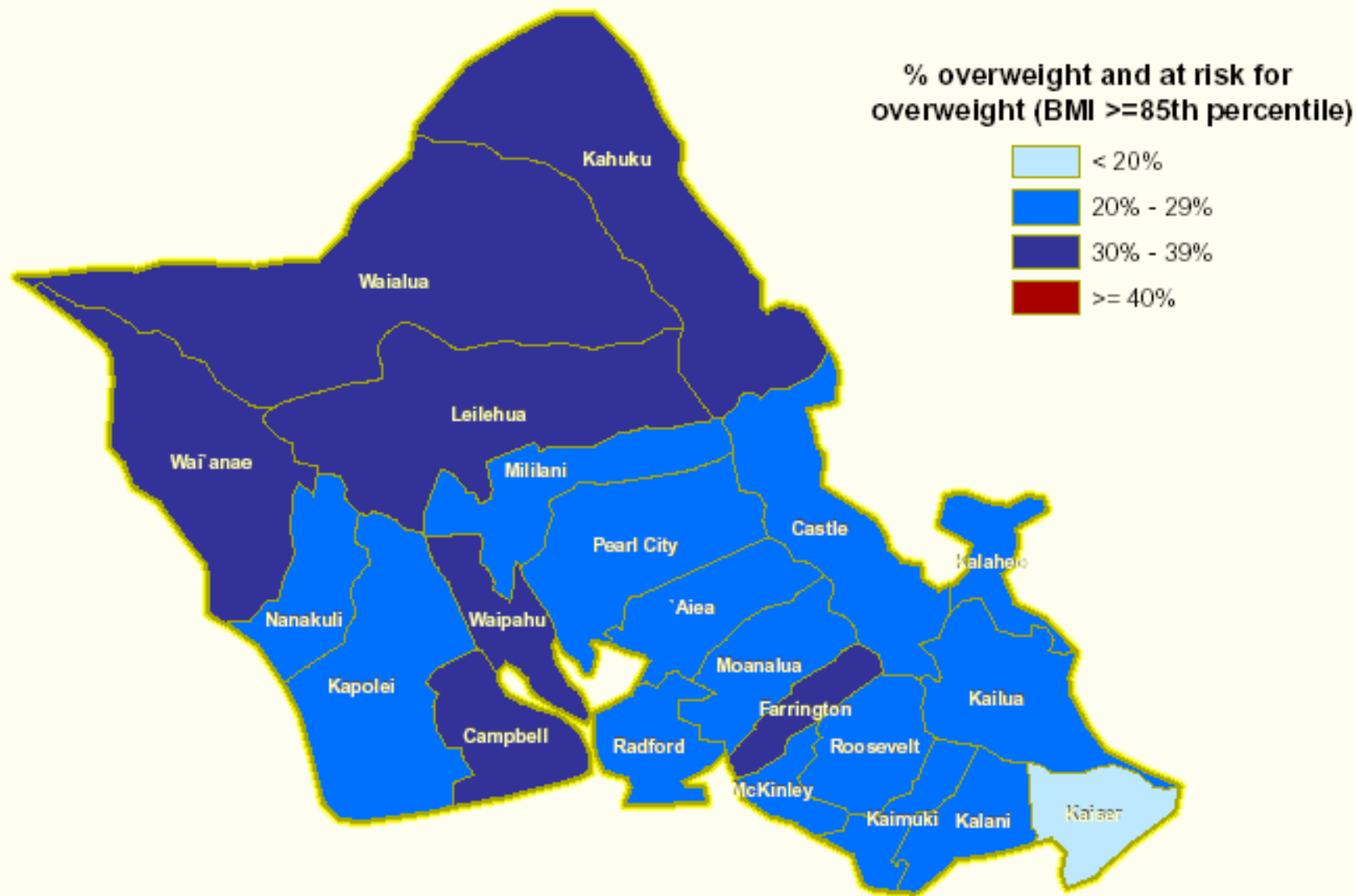
# Percent Overweight And At Risk for Overweight, Public School Students Entering Kindergarten By School Complex, Kaua'i County, 2002 - 2003

% overweight and at risk for overweight (BMI  $\geq$  85th percentile)



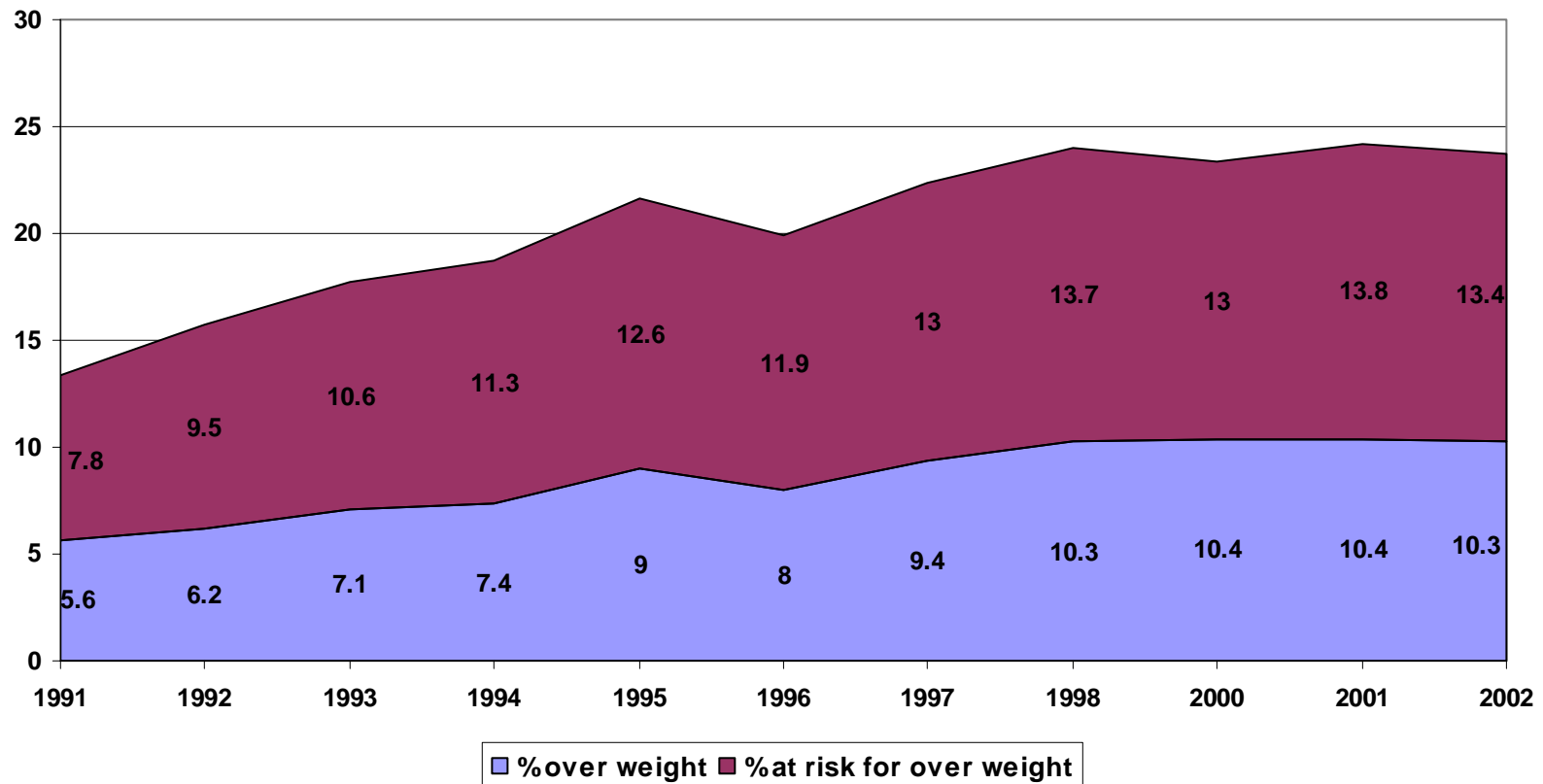


# Percent Overweight And At Risk for Overweight, Public School Students Entering Kindergarten By School Complex, Honolulu County, 2002 - 2003



# Hawaii WIC Program Data

Trend data: Percent of children > 2 years at risk for and overweight, WIC program, 1991-2002



# DOE 2002-03 Kindergarten BMI Study

## Youth Risk Behavioral Survey

State	Overweight %	At Risk %	Total %
Kindergarten Study (N=10,199)	14.4	14.1	28.5
MS YRBS (N=7,709)	16.6	18.5	35.1
HS YRBS* (N=8,791)	12.1	14.8	26.9

\*unweighted, response rate 53%

# Youth Risk Behavioral Survey

## School Year 2003

Health Risk Behavior	HP 2010 %	Middle School %	High School %*
Overweight or at risk for overweight	15	35.1	27.3 (28.9)
Ate 5 or more servings of fruits and vegetables per day		NA	15.3 (22.0)
Ate 2 daily servings of fruit	75		
Ate 3 daily servings of vegetables	50		
Participated in moderate physical activity	35	33.4	20.6 (24.7)
Participated in vigorous physical activity	85	62.2	59.2 (62.6)

\*unweighted

(National rate)

# Adult Obesity In Hawaii

---

The current definitions of overweight and obesity for adults are based on BMI (body mass index as an indicator):

Body Mass Index = weight in kilograms  $\div$  [height in meters]<sup>2</sup>

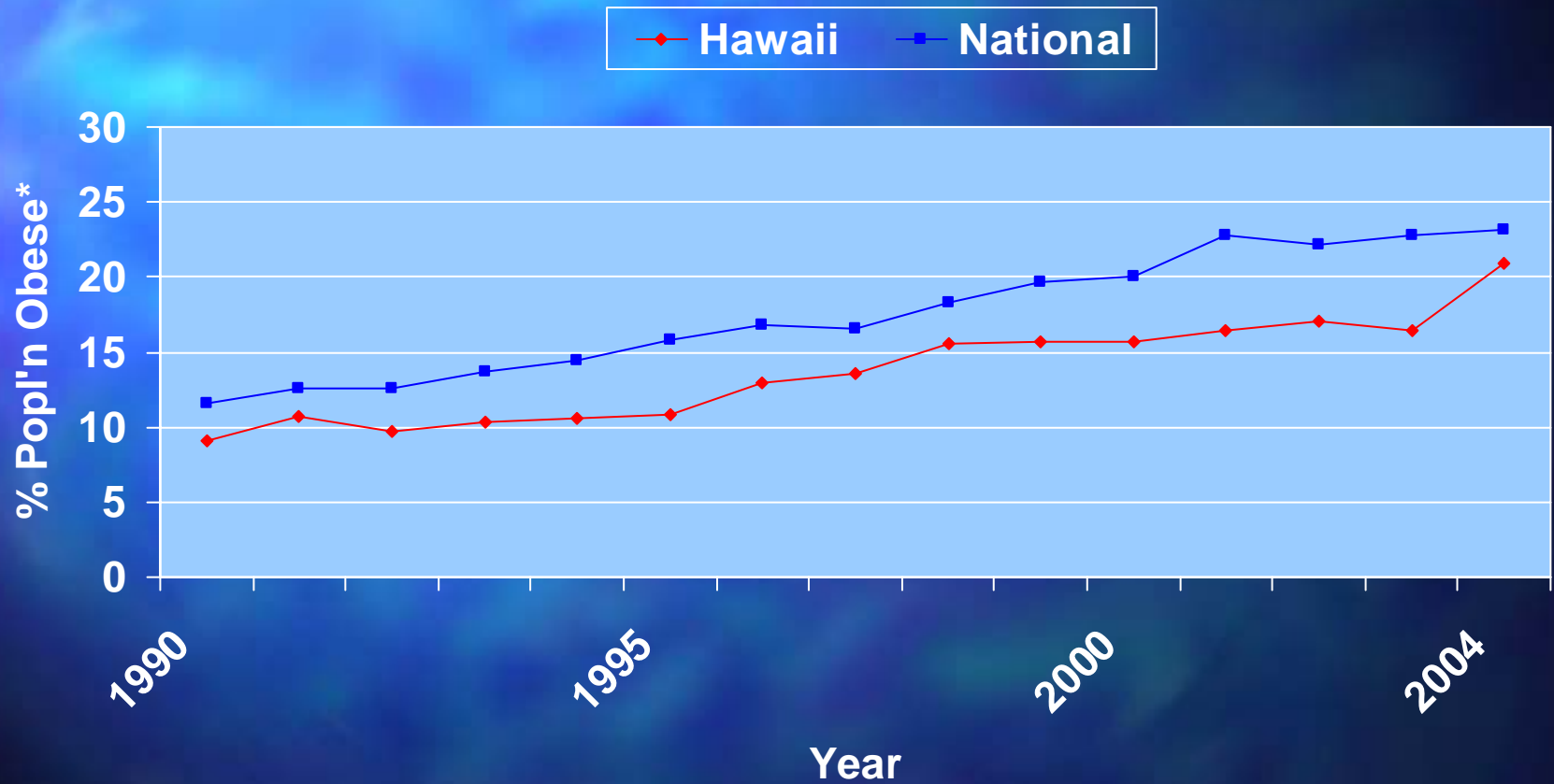
BMI of  $\geq 18.5$  to  $< 25$  is normal weight;

BMI of  $\geq 25$  to  $< 30$  is overweight;

BMI  $\geq 30$  is obese.



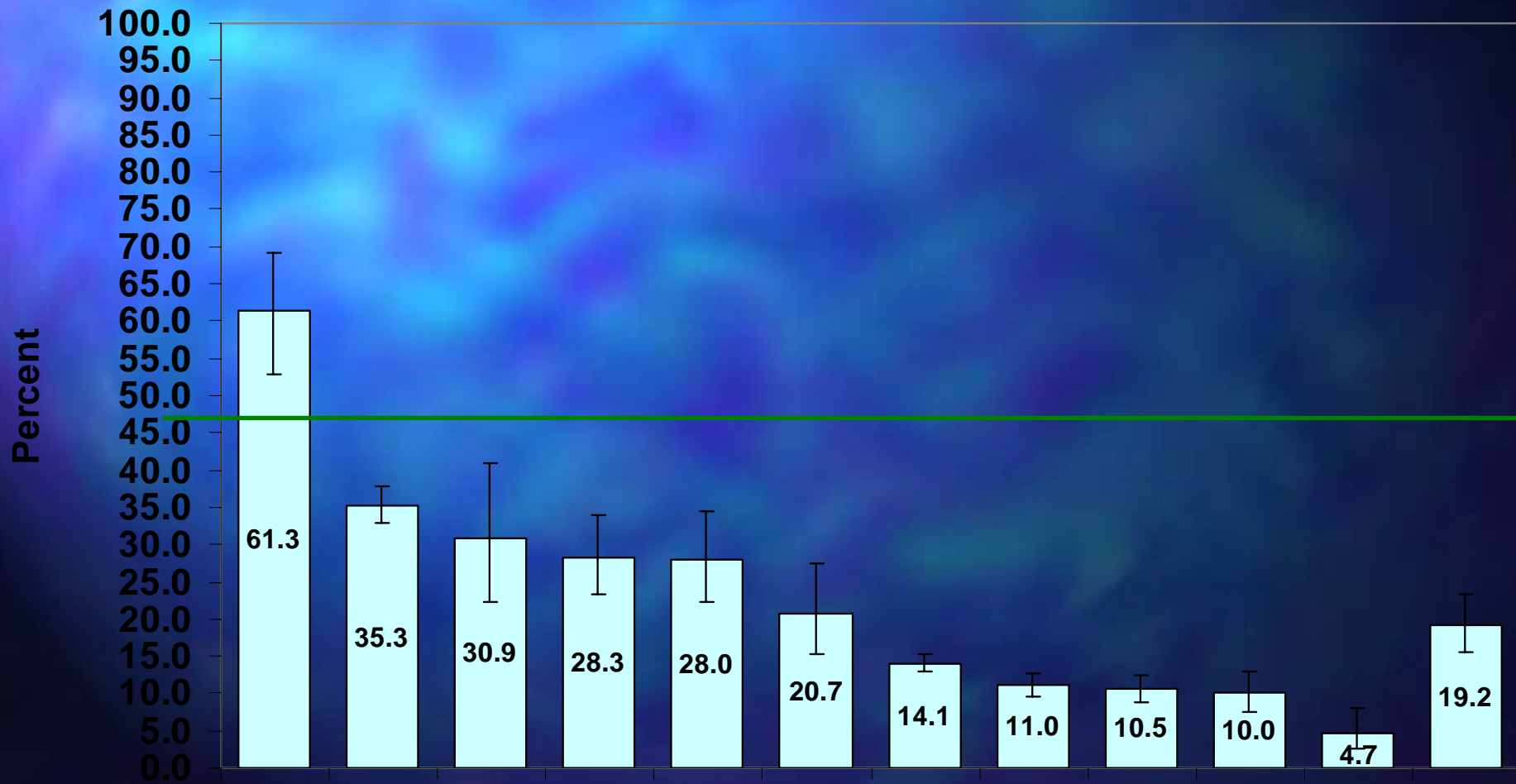
# Trends in Obesity



\*Obesity = BMI 30 or greater



**Percent obese among adults 20 years or older by Ethnicity,  
Hawaii BRFSS combined year data set, 2000-2003  
(age-adjusted)**



# BMI ISSUES

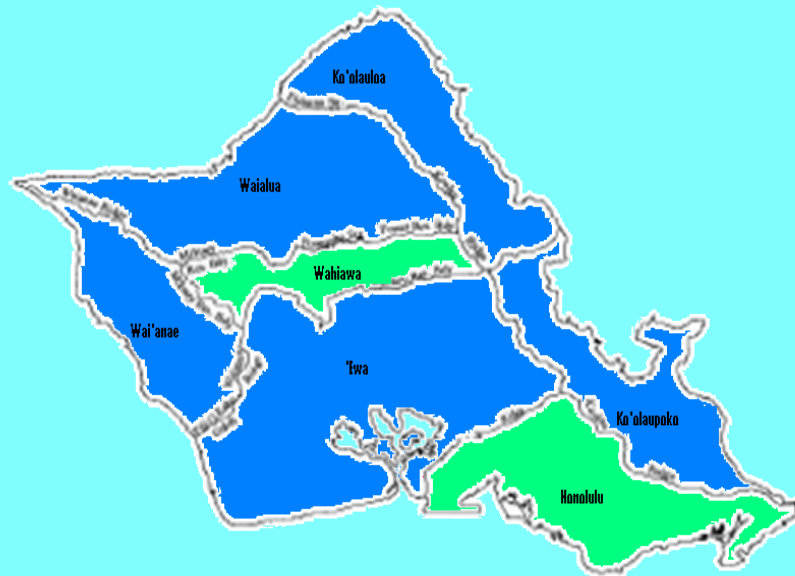
---

BMI is not a perfect measure. However, it is a better measurement tool than weight alone because it does account for height.

There is debate about the applicability of BMI cut-off points for Asians and Pacific Islanders.

It has been suggested that the BMI level designated as overweight for Asians should be lowered and raised for Pacific Islanders. Some research supports this but more needs to be done.

# Percent Adults Overweight and Obese by Community), City and County of Honolulu - 2003



Color	% Overwt / Obese
Yellow	< 25
Orange	25 – 29
Pink	30 – 39
Green	40 – 49
Blue	50 +

49.8% BRFSS

27.7% Grade K

# Percent Adults Overweight and Obese (by Community), Kaua'i County - 2003

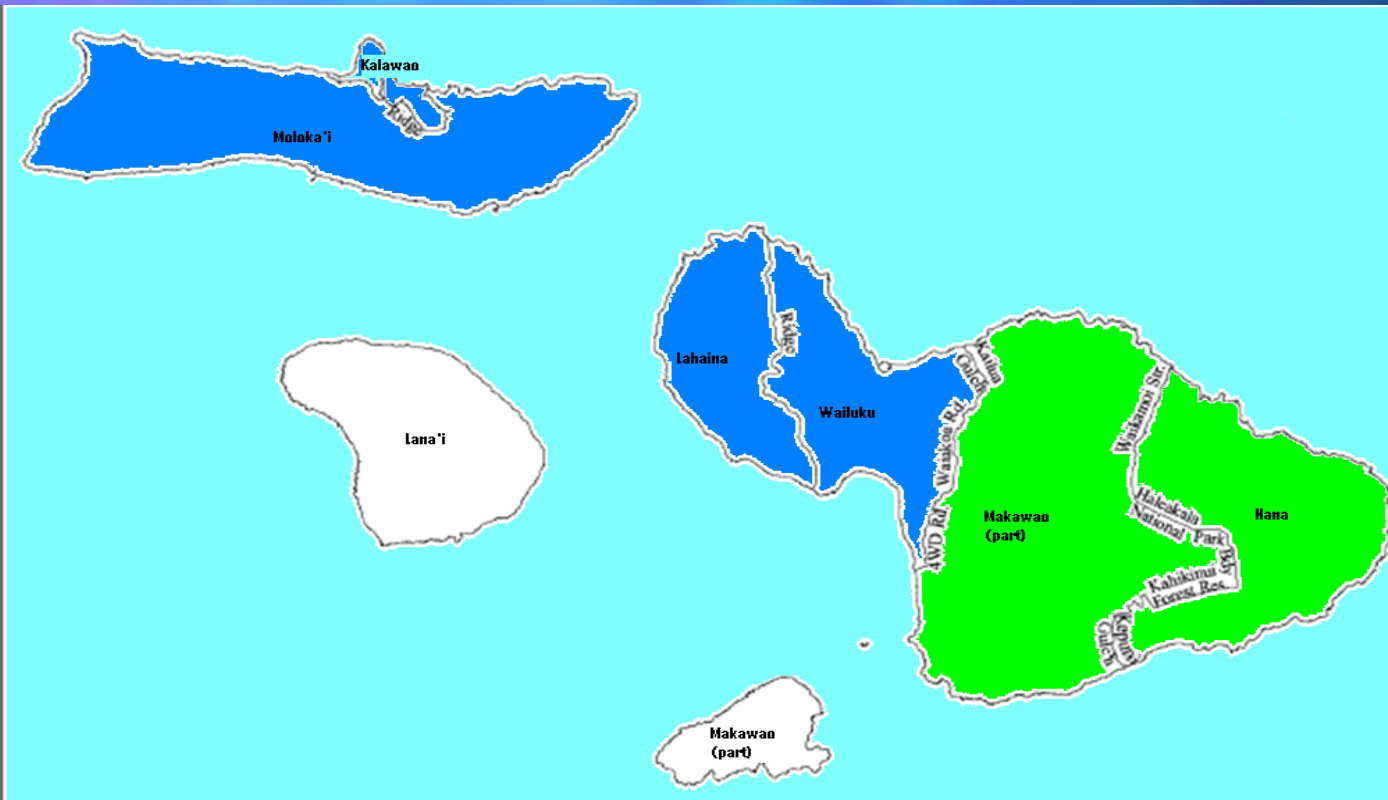


Color	% Overwt / Obese
Yellow	< 25
Orange	25 – 29
Pink	30 – 39
Green	40 – 49
Blue	50 +

48.5% BRFSS

28.9% Grade K

# Percent Adults Overweight and Obese (by Community), Maui County - 2003



Color	% Overwt / Obese
Yellow	< 25
Orange	25 – 29
Pink	30 – 39
Green	40 – 49
Blue	50 +

48.4% BRFSS

28.9% Grade K



# Percent Adults Overweight and Obese (by Community), Hawai'i County - 2003



Color	% Overwt / Obese
Yellow	< 25
Orange	25 – 29
Pink	30 – 39
Green	40 – 49
Blue	50 +

53.5% BRFSS

30.3% Grade K



# Strategic Plan Framework

---

**Centers for Disease Control and Prevention (CDC)  
American College of Sports Medicine (ACSM)  
Physical Activity Recommendations**

---

**Adults:**

All adults should engage in moderate-intensity physical activities for at least 30 minutes on 5 or more days of the week.

OR

Adults should engage in vigorous-intensity physical activity 3 or more days per week for 20 or more minutes per occasion.

**Centers for Disease Control and Prevention (CDC)  
American College of Sports Medicine (ACSM)  
Physical Activity Recommendations**

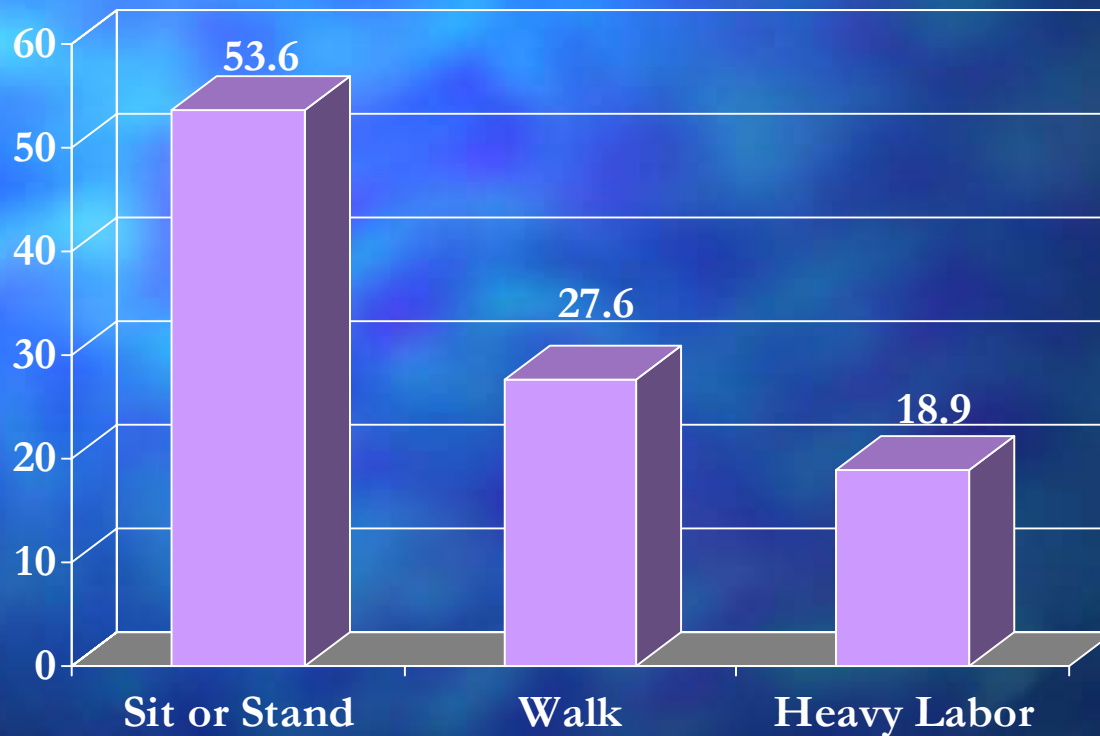
---

**Children and adolescents:**

It is recommended that children and adolescents participate in at least 60 minutes of moderate intensity physical activity most days of the week, preferably daily.

– Healthy People 2010

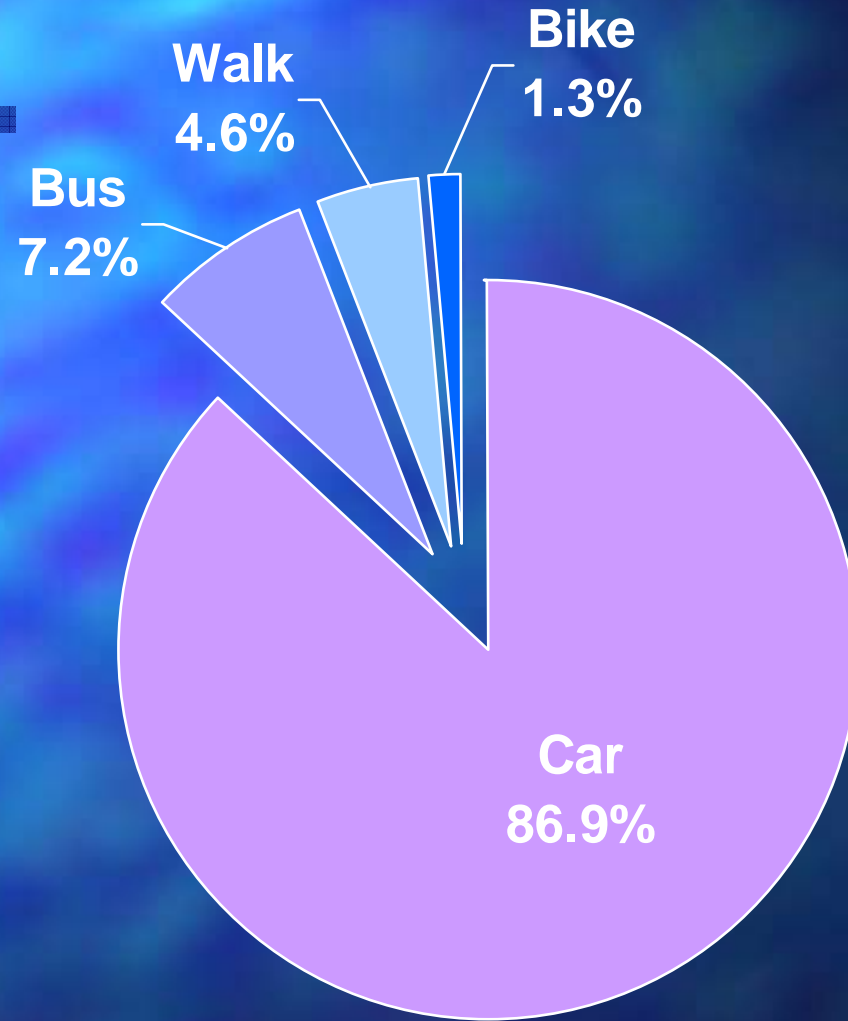
# When you are at work, what do you mostly do?



Note: 24.1% of the total sample does not work.

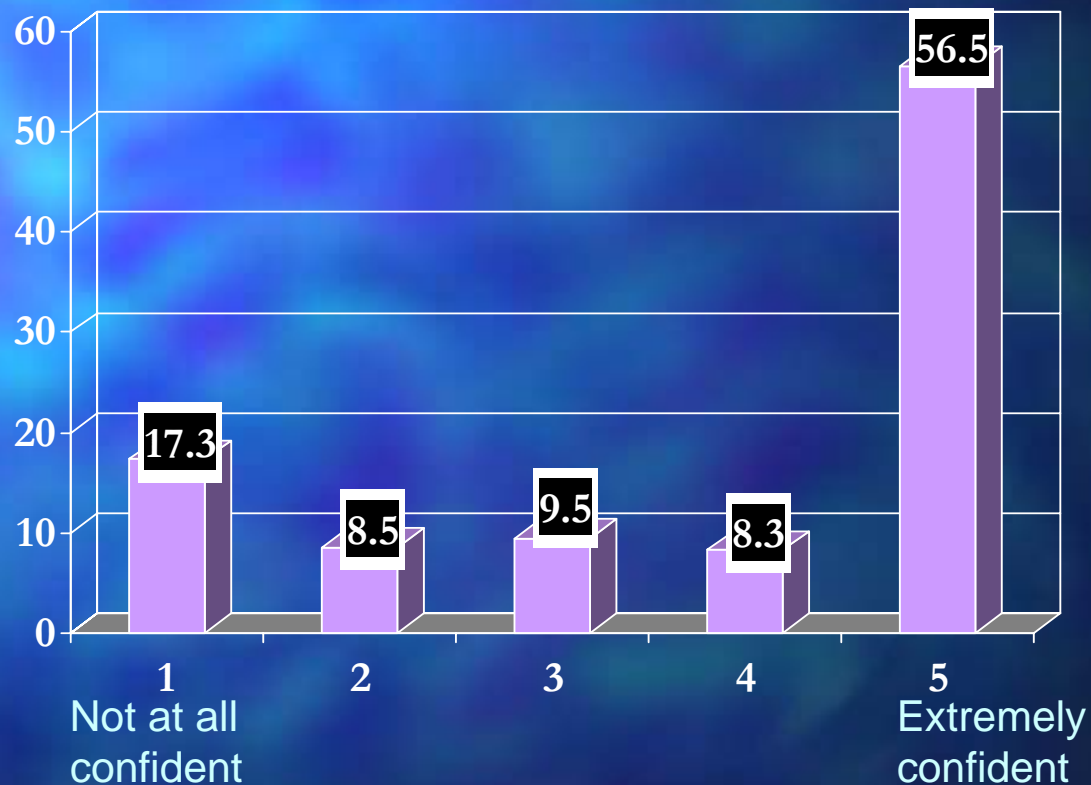


# How do you usually get to work?



n=445

# How confident are you that you could walk for 30 min. around your neighborhood?



NOTE: Figure only represents people in the pre-action stages of change for PA.



# Nutritional Recommendation

---

- Variety—Eat foods from all food groups and subgroups.
- Proportionality—Eat more of some foods (fruits, vegetables, whole grains, fat-free or low-fat milk products), and less of others (foods high in saturated or trans fats, added sugars, cholesterol salt, and alcohol.).
- Moderation—Choose forms of foods that limit intake of saturated or trans fats, added sugars, cholesterol, salt, and alcohol.

## GRAINS

Make half your grains whole

Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day

1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or ½ cup of cooked rice, cereal, or pasta

## VEGETABLES

Vary your veggies

Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens

Eat more orange vegetables like carrots and sweetpotatoes

Eat more dry beans and peas like pinto beans, kidney beans, and lentils

## FRUITS

Focus on fruits

Eat a variety of fruit

Choose fresh, frozen, canned, or dried fruit

Go easy on fruit juices

## MILK

Get your calcium-rich foods

Go low-fat or fat-free when you choose milk, yogurt, and other milk products

If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages

## MEAT & BEANS

Go lean with protein

Choose low-fat or lean meats and poultry

Bake it, broil it, or grill it

Vary your protein routine — choose more fish, beans, peas, nuts, and seeds

For a 2,000-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to [MyPyramid.gov](http://MyPyramid.gov).

Eat 6 oz. every day

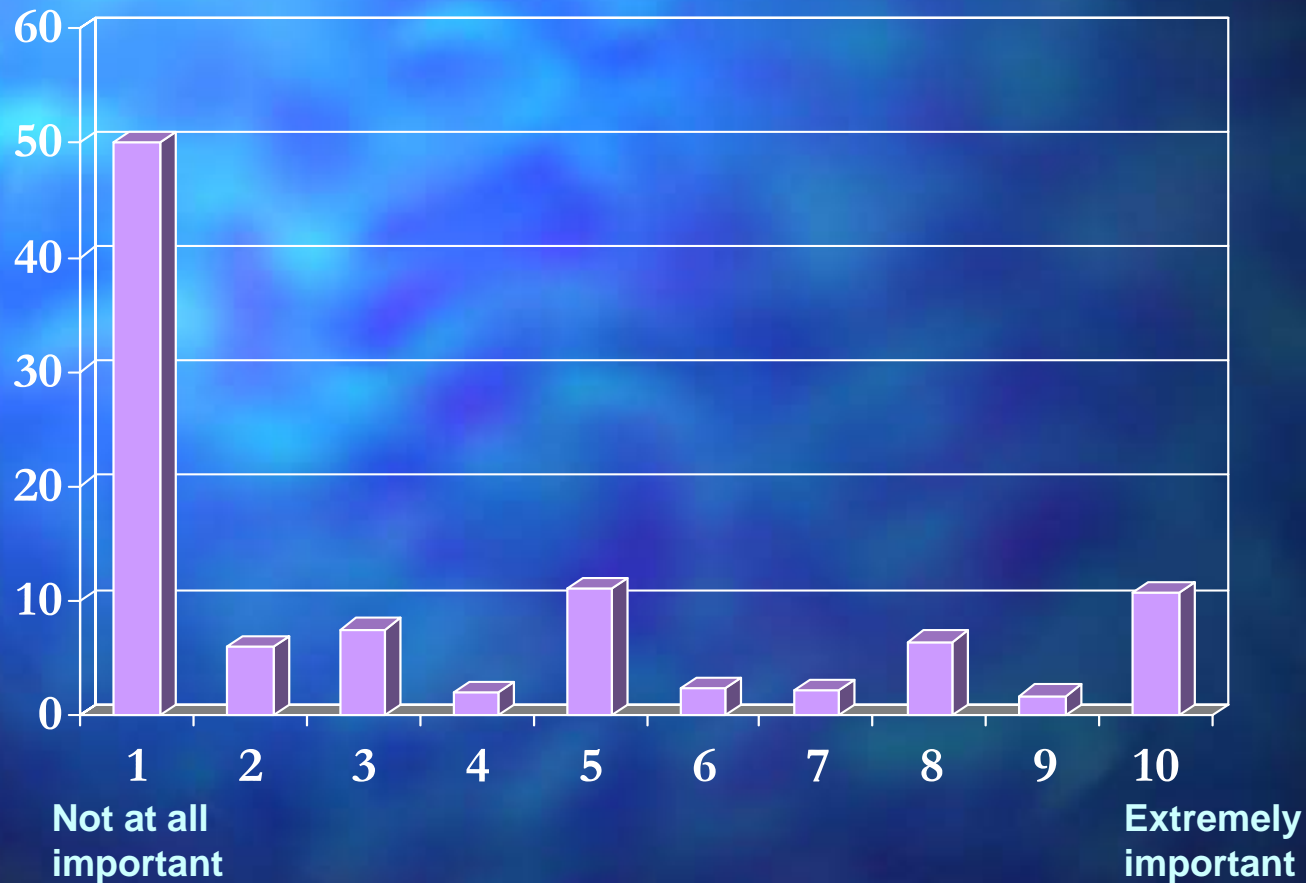
Eat 2½ cups every day

Eat 2 cups every day

Get 3 cups every day;  
for kids aged 2 to 8, it's 2

Eat 5½ oz. every day

**"Eating 5+ servings a day of fruits & vegetables is important to me."**

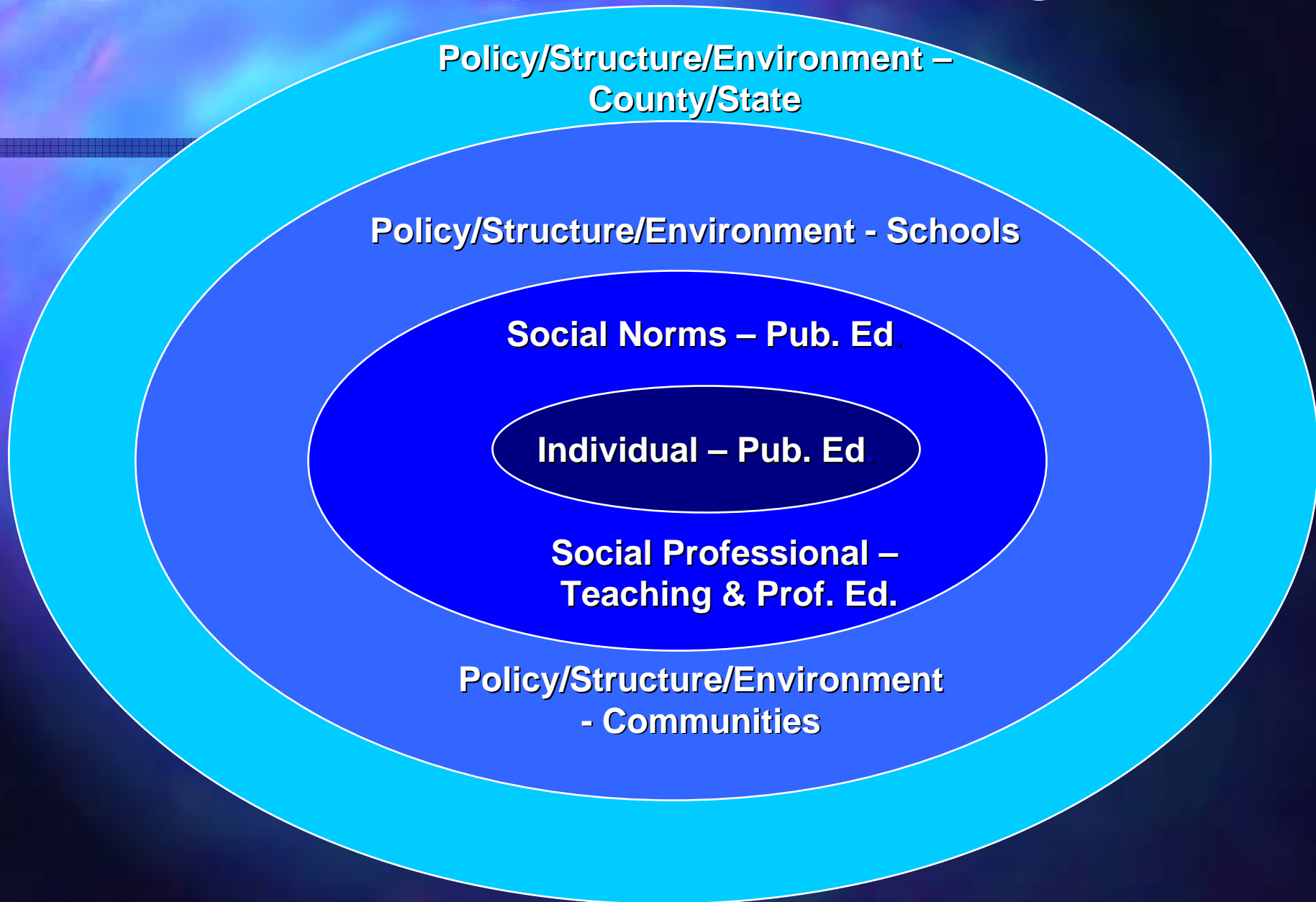


# Comprehensive Approach to Promote Physical Activity and Healthy Eating

---

- Leadership, Planning/Management, and Coordination
- Environmental, Systems, and Policy Change
- Mass Communication
- Community Programs and Community Development
- Programs for Children and Youth
- Health Care Delivery
- Surveillance, Epidemiology, and Research

# Public Health Response: Social-Ecological Model

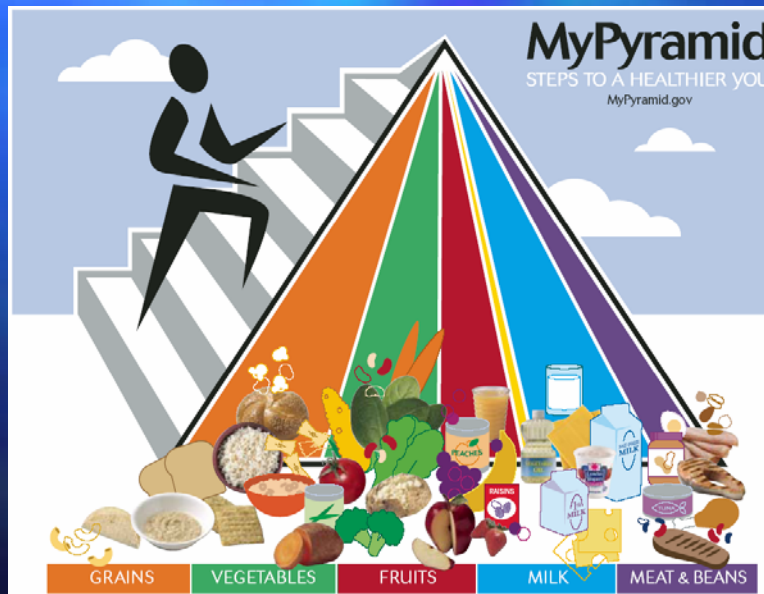




# Evidence Based Decision Making



## The Ten Essential Public Health Services





# Policy, Structure, Environment County and State Level

- Supporting state and county policies that promote healthy lifestyles
- Supporting state physical activity and nutrition coalition



# Policy, Structure, Environment County and State Level

- Developing joint land use agreements to increase access to physical activity opportunities through facility sharing
- Developing county level coalitions





# Policy, Structure, Environment Communities

- Promoting walkable communities
- Introducing workplace wellness initiatives and incentives



# Policy, Structure, Environment Schools

- Coordinating school health across components
- Supporting healthy food options during school hours
- Promoting access to physical activity opportunities and physical education
- Supporting health education and PE requirements and infrastructure



# Social Norms Public Education

- Media: TV, Radio, Theaters, Print
- Partnerships & Special Events





# Individual – Public Education

- Developing teams at worksites and in communities throughout the state to work on such activities as nutrition education classes and physical activity events



# Most Pertinent Theme

---

- Improve coordination and increase partnerships among and between public and private interests.
- Draw on the strengths of our communities for the purpose to create more focus and visibility for healthy lifestyle behaviors in Hawai`i.

# Presentation Data Sources

- Maddock, J.E., Takeuchi, L, & Choy L. (2005). Healthy Hawaii Initiative: Data Highlights. Presented to the Healthy Hawaii Initiative Management Team, Honolulu, HI.
- Behavioral Risk Factor Surveillance Survey: <http://www.hawaii.gov/health/statistics/brfss/index.html>
- Youth Risk Behavior Survey:
- Kindergarten Survey:
- WIC